

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P485740

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4HI-35-120-EDD-90**

Issue Date: 3/1/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P485740
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35357)
Test Lab: INNOVATION CENTER
Issue Date: 3/1/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-2-INS-89BC-LD4-4HI-35-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

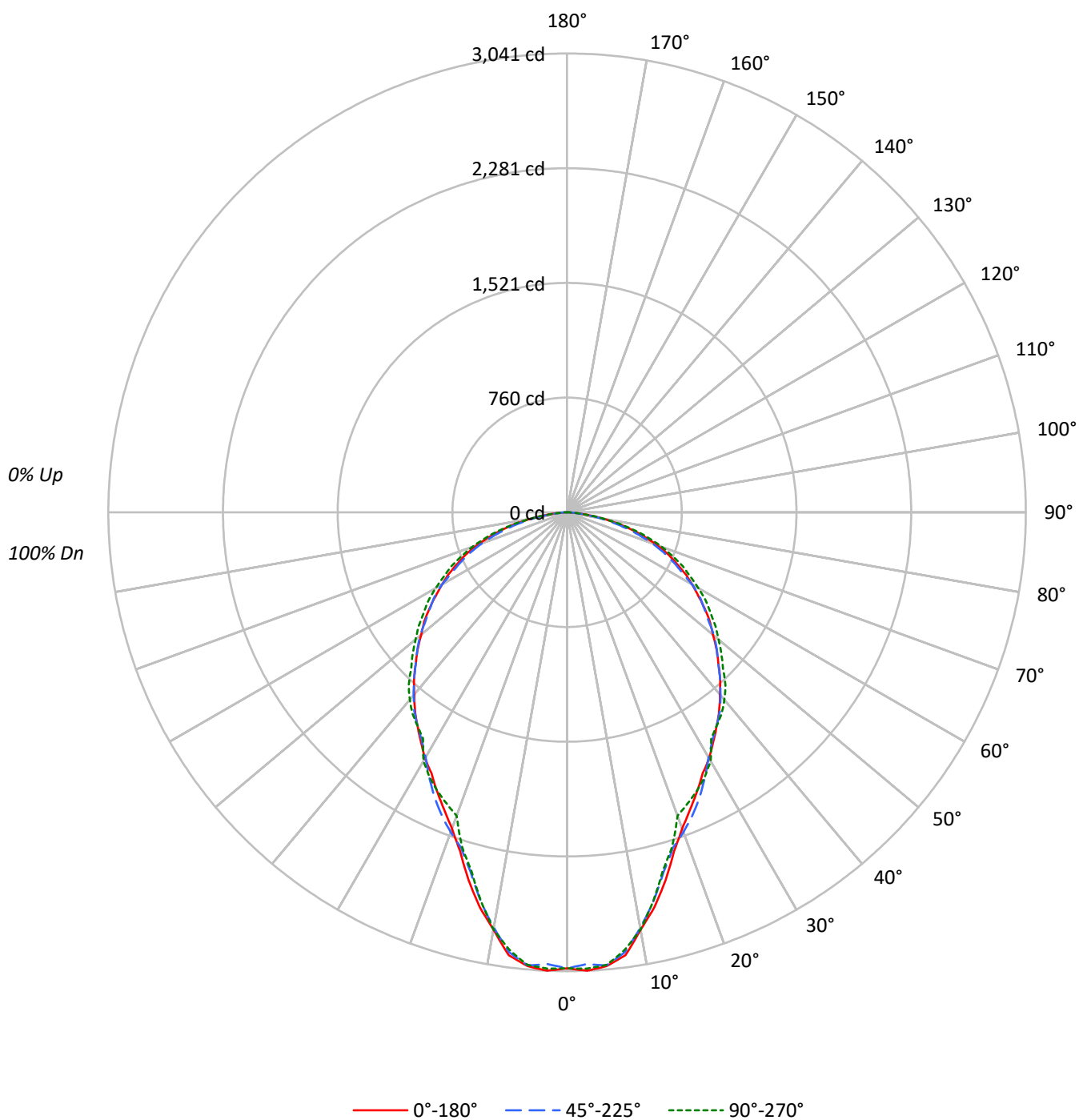
Lumens per Lamp: N/A
Luminaire Lumens: 6462.4 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 88
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	109	104	100	96	106	102	98	95		98	95	92		94	91	89		90	88	86
2	99	91	84	79	97	89	83	78		86	81	76		82	78	74		79	76	73
3	91	80	72	66	88	79	71	65		76	69	64		73	67	63		70	66	62
4	83	71	63	56	81	70	62	56		67	60	55		65	59	54		63	58	53
5	77	64	55	48	75	63	54	48		61	53	48		59	52	47		57	51	47
6	71	58	49	43	69	57	48	42		55	48	42		53	47	42		52	46	41
7	66	53	44	38	64	52	44	38		50	43	37		49	42	37		47	41	37
8	61	48	40	34	60	47	39	34		46	39	34		45	38	33		44	38	33
9	58	44	36	31	56	44	36	31		43	35	30		41	35	30		40	35	30
10	54	41	33	28	53	40	33	28		40	33	28		39	32	28		38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8132	8132	8132
5°	8154	8141	8133
10°	7673	7639	7669
15°	7031	6877	6838
20°	6385	6457	6129
25°	6056	6177	6047
30°	5849	5825	5913
35°	5678	5678	5678
40°	5537	5559	5697
45°	5400	5394	5562
50°	5282	5322	5486
55°	5227	5205	5441
60°	5159	5151	5413
65°	5093	4933	5383
70°	4995	4711	5242
75°	4624	4183	4852
80°	3750	3409	3848
85°	2377	2133	2087



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.7	4.3
10°-20°	701.7	10.9
20°-30°	947.6	14.7
30°-40°	1085.1	16.8
40°-50°	1111.5	17.2
50°-60°	1008.5	15.6
60°-70°	787.1	12.2
70°-80°	446.5	6.9
80°-90°	93.7	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1929.9	29.9
0°-40°	3015.0	46.7
0°-60°	5135.1	79.5
0°-90°	6462.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6462.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3022	3022	3022	3022	3022	
5°	3019	2984	3014	3020	3011	282
15°	2524	2532	2469	2481	2454	705
25°	2040	2066	2080	2030	2036	941
35°	1728	1732	1728	1730	1728	1083
45°	1419	1430	1417	1476	1461	1097
55°	1114	1112	1109	1149	1160	996
65°	800	782	775	811	845	793
75°	445	412	402	426	467	465
85°	77	69	69	64	68	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3021.8	3021.8	3021.8	3021.8	3021.8
2.5°	3040.6	3017.1	2996.6	3029.6	3026.5
5°	3018.6	2984.1	3013.9	3020.2	3010.8
7.5°	2960.5	2938.5	2940.1	2927.5	2925.9
10°	2808.1	2820.6	2795.5	2817.5	2806.5
12.5°	2677.6	2685.5	2641.5	2650.9	2638.3
15°	2523.6	2531.5	2468.6	2481.2	2454.5
17.5°	2355.5	2383.8	2331.9	2347.6	2319.4
20°	2229.8	2253.4	2254.9	2229.8	2140.2
22.5°	2130.8	2154.4	2173.2	2097.8	2088.4
25°	2039.7	2066.4	2080.5	2030.2	2036.5
27.5°	1948.5	1978.4	1978.4	1989.4	1975.2
30°	1882.5	1895.1	1874.7	1915.5	1902.9
32.5°	1803.9	1808.7	1791.4	1821.2	1777.2
35°	1728.5	1731.7	1728.5	1730.1	1728.5
37.5°	1656.2	1648.4	1662.5	1653.1	1682.9
40°	1576.1	1576.1	1582.4	1598.1	1621.7
42.5°	1502.2	1508.5	1500.7	1544.7	1554.1
45°	1419.0	1430.0	1417.4	1475.5	1461.4
47.5°	1343.5	1348.2	1345.1	1384.4	1387.5
50°	1261.8	1268.1	1271.2	1305.8	1310.5
52.5°	1194.2	1192.7	1181.7	1232.0	1239.8
55°	1114.1	1112.5	1109.4	1148.7	1159.7
57.5°	1032.4	1034.0	1041.8	1063.8	1090.5
60°	958.5	950.7	957.0	983.7	1005.7
62.5°	883.1	869.0	854.8	898.8	919.3
65°	799.8	782.5	774.7	810.8	845.4
67.5°	722.8	694.6	689.8	715.0	755.8
70°	634.8	600.3	598.7	617.6	666.3
72.5°	537.4	507.6	499.7	524.8	568.8
75°	444.7	411.7	402.3	425.8	466.7
77.5°	344.1	317.4	311.1	323.7	356.7
80°	242.0	226.3	220.0	224.7	248.3
82.5°	152.4	141.4	138.3	136.7	149.3
85°	77.0	69.1	69.1	64.4	67.6
87.5°	23.6	22.0	20.4	15.7	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)